



MEDICAL EXAMINER JURISDICTION, CAUSE AND MANNER OF DEATH, AND DEATH CERTIFICATION

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<https://www.tn.gov/health/section/OSCM>

Accuracy and Timeliness in Death Certification

- The death certificate must be completed before final disposition of the body; delay in completing and signing may interfere with funeral arrangements
- Significant implications in death benefits paid to families (for example, workers' compensation claims; double indemnity payments in cases of accidental death)
- The death certificate is the source of information for regional, state, and national mortality data, which in turn is used for funding and directing research and public health efforts

Jurisdiction: Who Should Complete and Sign the Death Certificate?

- In most **natural** deaths, a treating physician is responsible for the medical certification of death, including deaths which occur outside of health care facilities or in which the physician is not physically present
- The medical examiner may assume jurisdiction only under certain circumstances
- Non-medical examiner cases will be signed by “the physician in charge of the patient’s care for the illness or condition that resulted in death...In the absence of the physician, the certificate may be completed and signed by another physician designated by the physician” (TCA 68-3-502)
- Certifier immune from civil suit if completed in good faith; failure to do so may result in discipline by Board of Medical Examiners

Medical Examiner Certification of Death

- The county medical examiner for the county in which the death occurred should be notified in “any case involving a homicide, a suspected homicide, a suicide, or a violent, unnatural, or suspicious death” (TCA 38-7-106)
- Examples include:
 - Deaths due or related to acute overdose of legal or illegal drugs and/or alcohol
 - Deaths due to drowning
 - Deaths due to thermal or chemical burns, or smoke inhalation
 - Death by disease, injury, or toxicity resulting from employment
 - Deaths due to hypo- or hyperthermia
- In such cases, the county medical examiner “shall investigate and certify the death certificate” (TCA 68-3-502-d)

Medical Examiner Certification of Death: Delayed Non-natural Deaths

- If any external force or entity is related in any way to death, the manner of death cannot be considered natural
- All non-natural deaths fall under medical examiner jurisdiction
 - Jurisdiction is based on the county in which death was pronounced
- **The interval of time elapsed between injury and death is irrelevant**
- Examples of delayed deaths include:
 - An elderly person who dies months after becoming bedridden after a fall;
 - A person who dies of pneumonia due to paraplegia resulting from a car accident years before;
 - A person who dies a week after an anoxic brain injury caused by choking on food

Other Deaths Which Should Be Reported to the Medical Examiner

- Deaths of prisoners or those in state custody
- Sudden, unexpected deaths of infants and children
- Deaths of adults lacking a medical diagnosis which could reasonably result in death
- Deaths due to hypo- or hyperthermia
- Death of a fetus greater than 20 weeks gestation or weighing at least 350 grams resulting from maternal trauma or acute drug use
- Deaths due to suspected abuse or neglect of residents of long-term care facilities
- Unidentified human remains

Deaths Which Must Be Reported to the County Medical Examiner

Deaths due to or related to any type of violence or trauma

Deaths due or related to acute overdose of legal or illegal drugs and/or alcohol

Sudden, unexpected deaths of infants and children

Deaths of adults lacking a medical diagnosis which could reasonably result in death

Deaths due to drowning

Deaths due to thermal or chemical burns, or smoke inhalation

Death by disease, injury, or toxicity resulting from employment

Deaths of prisoners

Deaths due to hypo- or hyperthermia

Death of a fetus greater than 20 weeks gestation or weighing at least 350 grams resulting from maternal trauma or acute drug use

Deaths due or related to any of the above or any other non-natural event, **regardless of the time elapsed between the injury and death. If death is related in any way to a discrete injury or poisoning event, the period of time between the non-natural event and the death is irrelevant.**

Examples of delayed deaths include:

- * An elderly person who dies months after becoming bedridden from a fall
- * A person who dies of urosepsis due to paraplegia following a car crash years before
- * A person who develops pneumonia as the result of anoxic brain injury after choking on food

Physician Certifiers

- One of the responsibilities of a primary-care physician is to provide death certification for his or her patients who die of natural, diagnosed causes, even if the physician was not present at the time of death
 - If the patient has not been seen by the physician in the four months leading up to death, the physician may still certify the death, or may refer case to the county medical examiner
- Other physicians knowledgeable with patient history may also certify deaths
 - Examples: cardiologist, oncologist, emergency room physician

When and Where Death Occurs

- T.C.A. 68-3-501 (Uniform Determination of Death Act): death occurs when either:
 - Irreversible cessation of cardiac and respiratory systems occurs; or
 - Irreversible cessation of function of entire brain occurs
- T.C.A. 68-3-502: when a body is discovered dead, the place, date, and time of death are when and where the body was found



TENNESSEE DEPARTMENT OF HEALTH
CERTIFICATE OF DEATH

STATE FILE NUMBER

DECEDENT	1. DECEDENT'S LEGAL NAME (First, Middle, Last, Suffix)				2. SEX		3. DATE OF DEATH (Month, Day, Year)		
	4. TIME OF DEATH (Approx.)		5a. AGE - Last Birthday (Years) Months Days		5b. UNDER 1 YEAR Hours Minutes		5c. UNDER 1 DAY Hours Minutes		
TYPE PRINT IN PERMANENT BLACK INK NAME OF DECEDENT (If or use by Physician or Institution)	8b. PLACE OF DEATH (Check only one)								
	IF DEATH OCCURRED IN A HOSPITAL <input type="checkbox"/> Inpatient <input type="checkbox"/> ER/Outpatient <input type="checkbox"/> DCA				IF DEATH OCCURRED SOMEWHERE OTHER THAN A HOSPITAL <input type="checkbox"/> Hospice facility <input type="checkbox"/> Nursing home/Long term care facility <input type="checkbox"/> Decedent's home <input type="checkbox"/> Other residence <input type="checkbox"/> Other (Specify) _____				
	5b. FACILITY NAME (If not institution, give street and number)				8c. CITY OR TOWN		8d. COUNTY OF DEATH		
	9. MARITAL STATUS <input type="checkbox"/> Married <input type="checkbox"/> Married, but separated <input type="checkbox"/> Divorced <input type="checkbox"/> Never married		10. SURVIVING SPOUSE (If wife, give name prior to first marriage) <input type="checkbox"/> Widowed <input type="checkbox"/> Unknown		11a. DECEDENT'S USUAL OCCUPATION		11b. KIND OF BUSINESS/INDUSTRY		
	12. SOCIAL SECURITY NUMBER		13a. RESIDENCE-STATE OR FOREIGN COUNTRY		13b. COUNTY		13c. CITY OR TOWN		
	13d. STREET AND NUMBER			13e. INSIDE CITY LIMITS <input type="checkbox"/> Yes <input type="checkbox"/> No		13f. ZIP CODE		14. WAS DECEDENT EVER IN US ARMED FORCES? <input type="checkbox"/> Yes <input type="checkbox"/> No	
	15. DECEDENT'S EDUCATION (Check the box that best describes the highest degree or level of school completed at the time of death) <input type="checkbox"/> 8th grade or less <input type="checkbox"/> 9th - 12th grade, no diploma <input type="checkbox"/> High school graduate or GED completed <input type="checkbox"/> Some college credit, but no degree <input type="checkbox"/> Associate degree (e.g., AA, AS) <input type="checkbox"/> Bachelor's degree (e.g., BA, AB, BS) <input type="checkbox"/> Master's degree (e.g., MA, MS, MEng, MEd, MSW, MBA) <input type="checkbox"/> Doctorate (e.g., PhD, EdD) or Professional degree (e.g., MD, DDS, DVM, LLB, JD) <input type="checkbox"/> Unknown				16. DECEDENT OF HISPANIC ORIGIN? (Check the box that best describes whether the decedent is Spanish/Hispanic/Latino. Check the "No" box if decedent is not Spanish/Hispanic/Latino) <input type="checkbox"/> No, not Spanish/Hispanic/Latino <input type="checkbox"/> Yes, Mexican, Mexican American, Chicano <input type="checkbox"/> Yes, Puerto Rican <input type="checkbox"/> Yes, Cuban <input type="checkbox"/> Yes, other Spanish/Hispanic/Latino (Specify) _____ <input type="checkbox"/> Unknown		17. DECEDENT'S RACE (Check one or more races to indicate what the decedent considered himself or herself to be) <input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Black or African American <input type="checkbox"/> American Indian or Alaska Native (Name of the enrolled or principal tribe) _____ <input type="checkbox"/> Asian Indian <input type="checkbox"/> Chinese <input type="checkbox"/> Filipino <input type="checkbox"/> Japanese <input type="checkbox"/> Korean <input type="checkbox"/> Native Hawaiian <input type="checkbox"/> Guamanian or Chamorro <input type="checkbox"/> Samoan <input type="checkbox"/> Other Pacific Islander (Specify) _____ <input type="checkbox"/> Other (Specify) _____ <input checked="" type="checkbox"/> Unknown		
	18. FATHER'S NAME (First, Middle, Last)				19. BROTHER'S NAME PRIOR TO FIRST MARRIAGE (First, Middle, Last)				
	20a. INFANT'S NAME		20b. RELATIONSHIP TO DECEDENT		20c. MAILING ADDRESS (Street and Number, City, State, Zip Code)				
	21a. METHOD OF DISPOSITION <input type="checkbox"/> Donation <input type="checkbox"/> Entombment <input type="checkbox"/> Removal from State <input type="checkbox"/> Other (Specify) _____		21b. PLACE OF DISPOSITION (Name of cemetery, crematory, other place)		21c. LOCATION - City or Town and State				
22a. SIGNATURE OF FUNERAL DIRECTOR		22b. LICENSE NUMBER		22c. SIGNATURE OF EMBALMER		22d. LICENSE NUMBER			
23a. NAME AND ADDRESS OF FUNERAL HOME				23b. LICENSE NUMBER OF FUNERAL HOME					
24. REGISTRAR'S SIGNATURE				25. DATE FILED (Month, Day, Year)					
CERTIFIER PHYSICIAN OR MEDICAL EXAMINER EXERCISING JURISDICTION OF CERTIFICATE OF DEATH MUST COMPLETE AND SIGN WITHIN 48 HOURS	26a. <input type="checkbox"/> PHYSICIAN - To the best of my knowledge, death occurred at the date and place, and due to the cause(s) and manner stated.								
	26b. <input type="checkbox"/> MEDICAL EXAMINER - On the basis of examination, and/or investigation, in my opinion, death occurred at the date, and place, and due to the cause(s) and manner stated.								
MEDICAL CERTIFICATION	27a. SIGNATURE OF CERTIFIER		27b. LICENSE NUMBER		27c. DATE SIGNED (Month, Day, Year)				
	27d. NAME AND ADDRESS								
	28. PART I. Enter the <u>chain of events</u> (diseases, injuries, or complications) that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. Enter only one cause on a line. IMMEDIATE CAUSE (Final disease or condition resulting in death) Sequentially list conditions, if any, leading to the cause listed on line a. Enter the UNDERLYING CAUSE (disease or injury that initiated the events resulting in death) LAST							Approximate interval Onset to death	
	PART II. Other significant conditions contributing to death but not resulting in the underlying cause given in PART I.							29a. WAS AN AUTOPSY PERFORMED? <input type="checkbox"/> Yes <input type="checkbox"/> No	
	29b. WERE AUTOPSY FINDINGS AVAILABLE TO COMPLETE THE CAUSE OF DEATH? <input type="checkbox"/> Yes <input type="checkbox"/> No								
30. MANNER OF DEATH <input type="checkbox"/> Natural <input type="checkbox"/> Homicide <input type="checkbox"/> Accident <input type="checkbox"/> Pending Investigation <input type="checkbox"/> Suicide <input type="checkbox"/> Could not be determined		31. DID TOBACCO USE CONTRIBUTE TO DEATH? <input type="checkbox"/> Yes <input type="checkbox"/> Probably <input type="checkbox"/> No <input type="checkbox"/> Unknown		32. IF FEMALE <input type="checkbox"/> Not pregnant within past year <input type="checkbox"/> Pregnant at time of death <input type="checkbox"/> Not pregnant, but pregnant within 42 days of death <input type="checkbox"/> Unknown if pregnant within the past year					
33. IF TRANSPORTATION INJURY, SPECIFY: <input type="checkbox"/> Driver/Operator <input type="checkbox"/> Passenger <input type="checkbox"/> Pedestrian <input type="checkbox"/> Other (Specify) _____		34a. DATE OF INJURY (Month, Day, Year)		34b. TIME OF INJURY		34c. INJURY AT WORK? <input type="checkbox"/> Yes <input type="checkbox"/> No			
		34d. DESCRIBE HOW INJURY OCCURRED		34e. PLACE OF INJURY - at home, farm, street, factory, office, building, etc. (Specify)					
				34f. LOCATION OF INJURY (Street and Number, City or Town, State)					

CERTIFIER

PHYSICIAN
OR
MEDICAL
EXAMINER
EXECUTING
CAUSE OF
DEATH MUST
COMPLETE
AND SIGN
WITHIN 48
HOURS.

**MEDICAL
CERTIFICATION****26. CERTIFIER** (Check only one):26a. ☐ **PHYSICIAN** -To the best of my knowledge, death occurred at the date and place, and due to the cause(s) and manner stated.26b. ☐ **MEDICAL EXAMINER** - On the basis of examination, and/or investigation, in my opinion, death occurred at the date, and place, and due to the cause(s) and manner stated.27a. **SIGNATURE OF CERTIFIER**27b. **LICENSE NUMBER**27c. **DATE SIGNED** (Month, Day, Year)27d. **NAME AND ADDRESS**28. **PART I.** Enter the chain of events (diseases, injuries, or complications) that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. Enter only one cause on a line.Approximate interval:
Onset to death**IMMEDIATE CAUSE**(Final disease or condition
resulting in death)

a.

Due to (or as a consequence of)

b.

Due to (or as a consequence of):

c.

Due to (or as a consequence of):

d.

Sequentially list conditions,
if any, leading to the cause
listed on line a. Enter the
UNDERLYING CAUSE
(disease or injury that
initiated the events resulting
in death) **LAST**

PART II. Other significant conditions contributing to death but not resulting in the underlying cause given in PART I.29a. **WAS AN AUTOPSY PERFORMED?**☐ Yes ☐ No29b. **WERE AUTOPSY FINDINGS AVAILABLE TO
COMPLETE THE CAUSE OF DEATH?** ☐ Yes ☐ No**30. MANNER OF DEATH**

☐ Natural ☐ Homicide
☐ Accident ☐ Pending Investigation
☐ Suicide ☐ Could not be determined

**31. DID TOBACCO USE
CONTRIBUTE TO DEATH?**

☐ Yes ☐ Probably
☐ No ☐ Unknown

32. IF FEMALE:

☐ Not pregnant within past year ☐ Not pregnant, but pregnant 43 days to
1 year before death
☐ Pregnant at time of death
☐ Not pregnant, but pregnant within 42 days of death ☐ Unknown if pregnant within the past year

**33. IF TRANSPORTATION
INJURY, SPECIFY:**

☐ Driver/Operator
☐ Passenger
☐ Pedestrian
☐ Other (Specify) _____

34a. **DATE OF INJURY**
(Month, Day, Year)34b. **TIME OF
INJURY**34c. **INJURY AT WORK?**
☐ Yes ☐ No34d. **PLACE OF INJURY** –at home, farm, street, factory, office, building, etc.
(Specify)34e. **DESCRIBE HOW INJURY OCCURRED**34f. **LOCATION OF INJURY** (Street and Number, City or Town, State)

Medical Certification of Death

26. CERTIFIER (Check only one):		
26a. <input type="checkbox"/> PHYSICIAN -To the best of my knowledge, death occurred at the date and place, and due to the cause(s) and manner stated.		
26b. <input type="checkbox"/> MEDICAL EXAMINER - On the basis of examination, and/or investigation, in my opinion, death occurred at the date, and place, and due to the cause(s) and manner stated.		
27a. SIGNATURE OF CERTIFIER	27b. LICENSE NUMBER	27c. DATE SIGNED (Month, Day, Year)
▶	27d. NAME AND ADDRESS	

- 26 a. Check "Physician" or "Medical Examiner"
- 27 a. Sign
- 27 b. Enter number of Tennessee license to practice medicine
 - Only those with a Tennessee M.D. or D.O. license may certify death; in patients treated by nurse practitioners or physicians' assistants, the supervisory physician is responsible for certification of natural deaths
- 27 c. Date signed
- 27 d. Physician's name and address

Part I: Cause of Death Statement

<p>28. PART I. Enter the <u>chain of events</u> (diseases, injuries, or complications) that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. Enter only one cause on a line.</p>		<p>Approximate interval: Onset to death</p>
<p>IMMEDIATE CAUSE (Final disease or condition resulting in death)</p>	<p>a. _____ Due to (or as a consequence of)</p>	<p>_____</p>
<p>Sequentially list conditions, if any, leading to the cause listed on line a. Enter the UNDERLYING CAUSE (disease or injury that initiated the events resulting in death) LAST</p>	<p>b. _____ Due to (or as a consequence of):</p>	<p>_____</p>
	<p>c. _____ Due to (or as a consequence of):</p>	<p>_____</p>
	<p>d. _____ Due to (or as a consequence of):</p>	<p>_____</p>

- All lines do not have to be used
- List, in sequential order, conditions responsible for death:
 - ONE CONDITION per line
 - AVOID ABBREVIATIONS
 - IMMEDIATE CAUSE OF DEATH FIRST, UNDERLYING CAUSE OF DEATH LAST: THE BOTTOM LINE IS THE BOTTOM LINE

Cause of Death Statement

- Cause of death is defined as “the anatomic disease or injury that initiated the train of morbid events leading directly to death”
- The cause of death statement on the death certificate represents the *medical opinion* of the certifier
- *More likely than not*

“To the best of my knowledge...”

26. CERTIFIER (Check only one):

26a. ☐ **PHYSICIAN** - To the best of my knowledge, death occurred at the date and place, and due to the cause(s) and manner stated.

26b. ☐ **MEDICAL EXAMINER** - On the basis of examination, and/or investigation, in my opinion, death occurred at the date, and place, and due to the cause(s) and manner stated.

- Tennessee code grants civil immunity to certifying physicians acting in good faith (TCA 68-3-513)

Cause of Death Statement: Examples

- 56 year old with hypertension suffers a hemorrhagic stroke

28. **PART I.** Enter the chain of events (diseases, injuries, or complications) that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. Enter only one cause on a line.

IMMEDIATE CAUSE

(Final disease or condition resulting in death)

Sequentially list conditions, if any, leading to the cause listed on line a. Enter the

UNDERLYING CAUSE

(disease or injury that initiated the events resulting in death) **LAST**

a. HEMORRHAGIC CEREBROVASCULAR ACCIDENT

Due to (or as a consequence of)

b. ESSENTIAL HYPERTENSION

Due to (or as a consequence of):

c. _____

Due to (or as a consequence of):

d. _____

Cause of Death Statement: Examples

- 43 year old receives a bone marrow transplant and develops *C. difficile* colitis

28. **PART I.** Enter the chain of events (diseases, injuries, or complications) that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. Enter only one cause on a line.

IMMEDIATE CAUSE

(Final disease or condition resulting in death)

Sequentially list conditions, if any, leading to the cause listed on line a. Enter the

UNDERLYING CAUSE

(disease or injury that initiated the events resulting in death) **LAST**

a. CLOSTRIDIUM DIFFICILE COLITIS

Due to (or as a consequence of)

b. IMMUNOSUPPRESSION

Due to (or as a consequence of):

c. BONE MARROW TRANSPLANTATION

Due to (or as a consequence of):

d. ACUTE MYELOGENOUS LEUKEMIA

Cause of Death Statement: Examples

- It may not be possible to identify the precise physiologic sequence (mechanism) leading up to death
- In such cases, the known diagnosis which could reasonably account for death should be listed as the cause
- Example: patient in hospice with metastatic lung cancer

28. **PART I.** Enter the chain of events (diseases, injuries, or complications) that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. Enter only one cause on a line.

IMMEDIATE CAUSE (Final disease or condition resulting in death)	→ a.	ADENOCARCINOMA OF LUNG WITH METASTASES TO BRAIN
Sequentially list conditions, if any, leading to the cause listed on line a. Enter the UNDERLYING CAUSE (disease or injury that initiated the events resulting in death) LAST	b.	Due to (or as a consequence of)
	c.	Due to (or as a consequence of):
	d.	Due to (or as a consequence of):

Cause of Death Statement: Examples

- It is acceptable to use the terms “probable”, “possible”, or “suspected”
- Example: 86 year-old with 7 cm abdominal aortic aneurysm found dead at home with distended abdomen

28. **PART I.** Enter the chain of events (diseases, injuries, or complications) that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. Enter only one cause on a line.

IMMEDIATE CAUSE (Final disease or condition resulting in death) Sequentially list conditions, if any, leading to the cause listed on line a. Enter the UNDERLYING CAUSE (disease or injury that initiated the events resulting in death) LAST	→ a.	PROBABLE RUPTURED AORTIC ANEURYSM	
			Due to (or as a consequence of)
	b.	ATHEROSCLEROTIC CARDIOVASCULAR DISEASE	
			Due to (or as a consequence of):
	c.		
			Due to (or as a consequence of):
	d.		

Aspiration Pneumonia

- Most cases of aspiration pneumonia occur in neurologically compromised patients
- The underlying disease process causing the impairment should be listed as the cause of death

28. **PART I.** Enter the chain of events (diseases, injuries, or complications) that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. Enter only one cause on a line.

IMMEDIATE CAUSE

(Final disease or condition resulting in death)

Sequentially list conditions, if any, leading to the cause listed on line a. Enter the

UNDERLYING CAUSE

(disease or injury that initiated the events resulting in death) **LAST**

a. ASPIRATION PNEUMONIA

Due to (or as a consequence of)

b. AMYOTROPHIC LATERAL SCLEROSIS

Due to (or as a consequence of):

c. _____

Due to (or as a consequence of):

d. _____

Interval: Onset to Death

- Underlying cause of death is listed last
- Shortest interval at top, longest at bottom, in sequential order

28. **PART I.** Enter the chain of events (diseases, injuries, or complications) that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. Enter only one cause on a line.

IMMEDIATE CAUSE

(Final disease or condition resulting in death)

Sequentially list conditions, if any, leading to the cause listed on line a. Enter the

UNDERLYING CAUSE

(disease or injury that initiated the events resulting in death) **LAST**

a.

Due to (or as a consequence of)

b.

Due to (or as a consequence of):

c.

Due to (or as a consequence of):

d.

Approximate interval:
Onset to death

Interval: Onset to Death: Examples

28. **PART I.** Enter the chain of events (diseases, injuries, or complications) that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. Enter only one cause on a line.

IMMEDIATE CAUSE

(Final disease or condition resulting in death)

Sequentially list conditions, if any, leading to the cause listed on line a. Enter the **UNDERLYING CAUSE** (disease or injury that initiated the events resulting in death) **LAST**

a. HYPERKALEMIA

Due to (or as a consequence of)

b. END-STAGE KIDNEY DISEASE

Due to (or as a consequence of):

c. DIABETIC NEPHROPATHY

Due to (or as a consequence of):

d. DIABETES MELLITUS

Approximate interval:
Onset to death

1 HOUR

6 MONTHS

12 YEARS

23 YEARS

28. **PART I.** Enter the chain of events (diseases, injuries, or complications) that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. Enter only one cause on a line.

IMMEDIATE CAUSE

(Final disease or condition resulting in death)

Sequentially list conditions, if any, leading to the cause listed on line a. Enter the **UNDERLYING CAUSE** (disease or injury that initiated the events resulting in death) **LAST**

a. VENTRICULAR FIBRILLATION

Due to (or as a consequence of)

b. CORONARY ARTERY THROMBOSIS

Due to (or as a consequence of):

c. ATHEROSCLEROTIC CARDIOVASCULAR DISEASE

Due to (or as a consequence of):

d. _____

Approximate interval:
Onset to death

SECONDS

HOURS

YEARS

Part II: Conditions Contributing to Death

28. PART I. Enter the <u>chain of events</u> (diseases, injuries, or complications) that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. Enter only one cause on a line.		Approximate interval: Onset to death
IMMEDIATE CAUSE (Final disease or condition resulting in death) →	a. _____ Due to (or as a consequence of)	
Sequentially list conditions, if any, leading to the cause listed on line a. Enter the UNDERLYING CAUSE (disease or injury that initiated the events resulting in death) LAST	b. _____ Due to (or as a consequence of):	
	c. _____ Due to (or as a consequence of):	
	d. _____ Due to (or as a consequence of):	
PART II. Other significant conditions contributing to death but not resulting in the underlying cause given in PART I.		29a. WAS AN AUTOPSY PERFORMED? <input type="checkbox"/> Yes <input type="checkbox"/> No
		29b. WERE AUTOPSY FINDINGS AVAILABLE TO COMPLETE THE CAUSE OF DEATH? <input type="checkbox"/> Yes <input type="checkbox"/> No

Part II: Contributory Causes of Death

- Conditions which contributed to but did not directly lead to death
- May list more than one contributory cause of death
- 75 year-old with hypertension, diabetes, and chronic obstructive pulmonary disease found dead at home without antecedent complaints

28. PART I. Enter the <u>chain of events</u> (diseases, injuries, or complications) that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. Enter only one cause on a line.		Approximate interval: Onset to death
IMMEDIATE CAUSE (Final disease or condition resulting in death)	a. <u>HYPERTENSIVE CARDIOVASCULAR DISEASE</u>	YEARS
Sequentially list conditions, if any, leading to the cause listed on line a. Enter the UNDERLYING CAUSE (disease or injury that initiated the events resulting in death) LAST	Due to (or as a consequence of)	
	b. _____ Due to (or as a consequence of):	
	c. _____ Due to (or as a consequence of):	
	d. _____ Due to (or as a consequence of):	
PART II. Other significant conditions contributing to death but not resulting in the underlying cause given in PART I. <u>DIABETES MELLITUS; CHRONIC OBSTRUCTIVE PULMONARY DISEASE</u>		29a. WAS AN AUTOPSY PERFORMED? <input type="checkbox"/> Yes <input type="checkbox"/> No
		29b. WERE AUTOPSY FINDINGS AVAILABLE TO COMPLETE THE CAUSE OF DEATH? <input type="checkbox"/> Yes <input type="checkbox"/> No

Cause versus Mechanism of Death

- Recall that the *cause* of death is the *anatomic* disease or injury that initiated the train of events leading to death
- *Mechanisms* of death are non-specific *physiologic* processes
- Mechanisms of death should not be listed as the sole or underlying cause of death
- Examples: exsanguination, respiratory arrest, arrhythmia, asphyxia, anoxic brain injury, metabolic acidosis

Non-specific Mechanisms of Death: Examples: More Information is Required

28. **PART I.** Enter the chain of events (diseases, injuries, or complications) that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. Enter only one cause on a line.

IMMEDIATE CAUSE

(Final disease or condition resulting in death)

Sequentially list conditions, if any, leading to the cause listed on line a. Enter the

UNDERLYING CAUSE

(disease or injury that initiated the events resulting in death) **LAST**

a. CARDIOPULMONARY ARREST

Due to (or as a consequence of)

b.

Due to (or as a consequence of):

c.

Due to (or as a consequence of):

d.

28. **PART I.** Enter the chain of events (diseases, injuries, or complications) that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. Enter only one cause on a line.

IMMEDIATE CAUSE

(Final disease or condition resulting in death)

Sequentially list conditions, if any, leading to the cause listed on line a. Enter the

UNDERLYING CAUSE

(disease or injury that initiated the events resulting in death) **LAST**

a. LETHAL DYSRHYTHMIA

Due to (or as a consequence of)

b.

VENTRICULAR FIBRILLATION

Due to (or as a consequence of):

c.

HYPERKALEMIA

Due to (or as a consequence of):

d.

DEHYDRATION

CDC: Additional Information Required

Abscess	Cerebrovascular accident	Hepatic failure	Pulmonary edema
Abdominal hemorrhage	Cerebellar tonsillar herniation	Hepatitis	Pulmonary embolism
Adhesions	Chronic bedridden state	Hepatorenal syndrome	Pulmonary insufficiency
Adult respiratory distress syndrome	Cirrhosis	Hyperglycemia	Renal failure
Acute myocardial infarction	Coagulopathy	Hyperkalemia	Respiratory arrest
Altered mental status	Compression fracture	Hypovolemic shock	Seizures
Anemia	Congestive heart failure	Hyponatremia	Septic shock
Anoxia/anoxic encephalopathy	Convulsions	Hypotension	Shock
Arrhythmia	Decubiti	Immunosuppression	Starvation
Ascites	Dehydration	Increase intracranial pressure	Subdural hematoma
Aspiration	Dementia (when not otherwise specified)	Intracranial hemorrhage	Subarachnoid hemorrhage
Atrial fibrillation	Diarrhea	Malnutrition	Sudden death
Bacteremia	Disseminated intravascular coagulopathy	Metabolic encephalopathy	Thrombocytopenia
Bedridden	Dysrhythmia	Multiorgan failure	Uncal herniation
Biliary obstruction	End stage liver disease	Multisystem organ failure	Urinary tract infection
Bowel obstruction	End stage renal disease	Myocardial infarction	Ventricular fibrillation
Brain injury	Epidural hematoma	Necrotizing soft tissue infection	Ventricular tachycardia
Brain stem herniation	Exsanguination	Old age	Volume depletion
Carcinogenesis	Failure to thrive	Open (or closed) head injury	
Carcinomatosis	Fracture	Pancytopenia	
Cardiac arrest	Gangrene	Paralysis	
Cardiac dysrhythmia	Gastrointestinal hemorrhage	Perforated gallbladder	
Cardiomyopathy	Heart failure	Peritonitis	
Cardiopulmonary arrest	Hemothorax	Pleural effusions	
Cellulitis		Pneumonia	
Cerebral edema		Pulmonary arrest	

Source: CDC: Physicians' Handbook on Medical Certification of Death

Manner of Death

28. PART I. Enter the <u>chain of events</u> (diseases, injuries, or complications) that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. Enter only one cause on a line.		Approximate interval: Onset to death
IMMEDIATE CAUSE (Final disease or condition resulting in death)	a. _____ Due to (or as a consequence of)	
Sequentially list conditions, if any, leading to the cause listed on line a. Enter the UNDERLYING CAUSE (disease or injury that initiated the events resulting in death) LAST	b. _____ Due to (or as a consequence of):	
	c. _____ Due to (or as a consequence of):	
	d. _____ Due to (or as a consequence of):	
PART II. Other significant conditions contributing to death but not resulting in the underlying cause given in PART I.		29a. WAS AN AUTOPSY PERFORMED? <input type="checkbox"/> Yes <input type="checkbox"/> No
		29b. WERE AUTOPSY FINDINGS AVAILABLE TO COMPLETE THE CAUSE OF DEATH? <input type="checkbox"/> Yes <input type="checkbox"/> No
30. MANNER OF DEATH <input type="checkbox"/> Natural <input type="checkbox"/> Homicide <input type="checkbox"/> Accident <input type="checkbox"/> Pending Investigation <input type="checkbox"/> Suicide <input type="checkbox"/> Could not be determined	31. DID TOBACCO USE CONTRIBUTE TO DEATH? <input type="checkbox"/> Yes <input type="checkbox"/> Probably <input type="checkbox"/> No <input type="checkbox"/> Unknown	32. IF FEMALE: <input type="checkbox"/> Not pregnant within past year <input type="checkbox"/> Pregnant at time of death <input type="checkbox"/> Not pregnant, but pregnant within 42 days of death <input type="checkbox"/> Not pregnant, but pregnant 43 days to 1 year before death <input type="checkbox"/> Unknown if pregnant within the past year

Manners of Death: Natural

- If a discrete injury or poisoning event contributed *in any way* to death, *regardless of time elapsed between the event and death*, manner of death cannot be considered to be natural
- All non-natural deaths are to be reported to the medical examiner of the county in which death occurred
- Only one manner of death may be selected
- **The non-medical examiner certifier of death should only choose “Natural” as a manner of death**

Manners of Death: Non-Natural; Reserved for County Medical Examiner

- **Accident:** death due to injury or poisoning, *regardless of time elapsed between inciting event and death*, not due to an intentional or volitional act
- **Homicide:** death resulting from a volitional act by another person intended to cause fear, harm, or death
- **Suicide:** death resulting from injury or poisoning as a result of an intentional self-inflicted act committed to cause self-harm
- **Could not be determined:** either too much or too little information to determine manner of death to a reasonable degree of medical certainty

Manners of Death: Examples

- 83 year old falls at home; admitted to hospital for ORIF of left femur; hospital course complicated by pneumonia, MI, ARF; dies two months later with mucus plug of trach
 - Manner of death: accident; cause of death: complications of left femur fracture
 - Apply the “but-for” principle: “but-for” the fall, the above-listed complications would not have occurred
 - Time elapsed between injury and death is irrelevant
 - DID NOT RETURN TO PRE-INJURY LEVEL OF FUNCTION

Manners of Death: Examples

- 53 year-old paraplegic dies of urosepsis
 - Paraplegia is due to ruptured spinal AVM: manner of death is natural
 - Paraplegia is due to injuries sustained in MVA ten years prior to death: manner of death is accident
 - Paraplegia is due to self-inflicted gunshot wound to chest three years prior to death: manner of death is suicide
 - Paraplegia is due to gunshot wound to spine after decedent discovered *in flagrante delicto* with a spouse not his own thirty years ago: manner of death is homicide

Manners of Death: Therapy-Related Deaths

- Deaths occurring as the result of a foreseeable complication of accepted therapy for natural disease are classified as **natural**
 - Example: Stevens-Johnson syndrome after Bactrim therapy; bone marrow suppression due to chemotherapy
- Deaths occurring as the result of improper use of medical equipment or of equipment malfunction are classified as **accident**

Autopsy?

28. PART I. Enter the <u>chain of events</u> (diseases, injuries, or complications) that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. Enter only one cause on a line.		Approximate interval: Onset to death
IMMEDIATE CAUSE (Final disease or condition resulting in death) → Sequentially list conditions, if any, leading to the cause listed on line a. Enter the UNDERLYING CAUSE (disease or injury that initiated the events resulting in death) LAST	a. _____	_____
	Due to (or as a consequence of)	_____
	b. _____	_____
	Due to (or as a consequence of):	_____
c. _____	_____	_____
Due to (or as a consequence of):	_____	_____
d. _____	_____	_____
PART II. <u>Other significant conditions contributing to death</u> but not resulting in the underlying cause given in PART I.		29a. WAS AN AUTOPSY PERFORMED? <input type="checkbox"/> Yes <input type="checkbox"/> No
_____ _____		29b. WERE AUTOPSY FINDINGS AVAILABLE TO COMPLETE THE CAUSE OF DEATH? <input type="checkbox"/> Yes <input type="checkbox"/> No

28. PART I. Enter the <u>chain of events</u> (diseases, injuries, or complications) that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. Enter only one cause on a line.				Approximate interval: Onset to death	
IMMEDIATE CAUSE (Final disease or condition resulting in death) → a. _____ Due to (or as a consequence of) _____					
Sequentially list conditions, if any, leading to the cause listed on line a. Enter the UNDERLYING CAUSE (disease or injury that initiated the events resulting in death) LAST { b. _____ Due to (or as a consequence of): _____					
c. _____ Due to (or as a consequence of): _____					
d. _____ Due to (or as a consequence of): _____					
PART II. <u>Other significant conditions contributing to death</u> but not resulting in the underlying cause given in PART I.				29a. WAS AN AUTOPSY PERFORMED? <input type="checkbox"/> Yes <input type="checkbox"/> No	
				29b. WERE AUTOPSY FINDINGS AVAILABLE TO COMPLETE THE CAUSE OF DEATH? <input type="checkbox"/> Yes <input type="checkbox"/> No	
30. MANNER OF DEATH <input type="checkbox"/> Natural <input type="checkbox"/> Homicide <input type="checkbox"/> Accident <input type="checkbox"/> Pending Investigation <input type="checkbox"/> Suicide <input type="checkbox"/> Could not be determined		31. DID TOBACCO USE CONTRIBUTE TO DEATH? <input type="checkbox"/> Yes <input type="checkbox"/> Probably <input type="checkbox"/> No <input type="checkbox"/> Unknown		32. IF FEMALE: <input type="checkbox"/> Not pregnant within past year <input type="checkbox"/> Not pregnant, but pregnant 43 days to 1 year before death <input type="checkbox"/> Pregnant at time of death <input type="checkbox"/> Unknown if pregnant within the past year <input type="checkbox"/> Not pregnant, but pregnant within 42 days of death	
33. IF TRANSPORTATION INJURY, SPECIFY: <input type="checkbox"/> Driver/Operator <input type="checkbox"/> Passenger <input type="checkbox"/> Pedestrian <input type="checkbox"/> Other (Specify) _____		34a. DATE OF INJURY (Month, Day, Year) _____		34b. TIME OF INJURY _____	
		34c. INJURY AT WORK? <input type="checkbox"/> Yes <input type="checkbox"/> No		34d. PLACE OF INJURY –at home, farm, street, factory, office, building, etc (Specify) _____	
		34e. DESCRIBE HOW INJURY OCCURRED _____		34f. LOCATION OF INJURY (Street and Number, City or Town, State) _____	

Tobacco Use

31. DID TOBACCO USE
CONTRIBUTE TO DEATH?

☐

Yes

☐

Probably

☐

No

☐

Unknown

Pregnancy Status

32. IF FEMALE:

☐ Not pregnant within past year

☐ Pregnant at time of death

☐ Not pregnant, but pregnant within 42 days of death

☐ Not pregnant, but pregnant 43 days to 1 year before death

☐ Unknown if pregnant within the past year

Injury Details

- In cases of natural death, leave blank; by definition there is no injury in a natural death

30. MANNER OF DEATH <input type="checkbox"/> Natural <input type="checkbox"/> Homicide <input type="checkbox"/> Accident <input type="checkbox"/> Pending Investigation <input type="checkbox"/> Suicide <input type="checkbox"/> Could not be determined		31. DID TOBACCO USE CONTRIBUTE TO DEATH? <input type="checkbox"/> Yes <input type="checkbox"/> Probably <input type="checkbox"/> No <input type="checkbox"/> Unknown		32. IF FEMALE: <input type="checkbox"/> Not pregnant within past year <input type="checkbox"/> Pregnant at time of death <input type="checkbox"/> Not pregnant, but pregnant within 42 days of death <input type="checkbox"/> Not pregnant, but pregnant 43 days to 1 year before death <input type="checkbox"/> Unknown if pregnant within the past year	
33. IF TRANSPORTATION INJURY, SPECIFY: <input type="checkbox"/> Driver/Operator <input type="checkbox"/> Passenger <input type="checkbox"/> Pedestrian <input type="checkbox"/> Other (Specify) _____		34a. DATE OF INJURY (Month, Day, Year)		34b. TIME OF INJURY	
		34c. INJURY AT WORK? <input type="checkbox"/> Yes <input type="checkbox"/> No		34d. PLACE OF INJURY –at home, farm, street, factory, office, building, etc. (Specify)	
		34e. DESCRIBE HOW INJURY OCCURRED		34f. LOCATION OF INJURY (Street and Number, City or Town, State)	

Scenario 1

An 80 year-old man was seen by a nurse practitioner two months ago for routine follow-up of his hypertension, diabetes mellitus, and chronic obstructive pulmonary disease. He was found dead at home without any signs of trauma, foul play, or drug overdose. Who should sign the death certificate?

- a. The nurse practitioner.
- b. The county medical examiner, as the death was unwitnessed.
- c. The county medical examiner, because the cause of death cannot be determined to a reasonable degree of medical certainty.
- d. The physician supervising the nurse practitioner.

Scenario 1

Answer: d.

The physician supervising any health care extender providing the patient's care for the illness which results in death shall sign the death certificate.

In this case, the cause of death in part I could be listed as "hypertensive cardiovascular disease", with diabetes mellitus and chronic obstructive pulmonary disease listed in part II as other significant conditions.

28. PART I. Enter the chain of events (diseases, injuries, or complications) that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. Enter only one cause on a line.		Approximate interval: Onset to death
IMMEDIATE CAUSE (Final disease or condition resulting in death) →	a. <u>HYPERTENSIVE CARDIOVASCULAR DISEASE</u>	YEARS
Sequentially list conditions, if any, leading to the cause listed on line a. Enter the	Due to (or as a consequence of)	
UNDERLYING CAUSE (disease or injury that initiated the events resulting in death) LAST	b. _____ Due to (or as a consequence of):	
	c. _____ Due to (or as a consequence of):	
	d. _____ Due to (or as a consequence of):	
PART II. Other significant conditions contributing to death but not resulting in the underlying cause given in PART I.		29a. WAS AN AUTOPSY PERFORMED? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<u>DIABETES MELLITUS; CHRONIC OBSTRUCTIVE PULMONARY DISEASE</u>		29b. WERE AUTOPSY FINDINGS AVAILABLE TO COMPLETE THE CAUSE OF DEATH? <input type="checkbox"/> Yes <input type="checkbox"/> No
30. MANNER OF DEATH <input checked="" type="checkbox"/> Natural <input type="checkbox"/> Homicide <input type="checkbox"/> Accident <input type="checkbox"/> Pending Investigation <input type="checkbox"/> Suicide <input type="checkbox"/> Could not be determined	31. DID TOBACCO USE CONTRIBUTE TO DEATH? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Probably <input type="checkbox"/> No <input type="checkbox"/> Unknown	32. IF FEMALE: <input type="checkbox"/> Not pregnant within past year <input type="checkbox"/> Not pregnant, but pregnant 43 days to 1 year before death <input type="checkbox"/> Pregnant at time of death <input type="checkbox"/> Unknown if pregnant within the past year <input type="checkbox"/> Not pregnant, but pregnant within 42 days of death

Scenario 2

An elderly person complained of left-sided chest pain and tightness shortly before collapsing. She was transported to the emergency department, where she was pronounced dead. Her family relates a history of multiple myocardial infarctions and high cholesterol, which were confirmed by the staff at her local physician's office. Who should sign the death certificate?

- a. The patient's primary care doctor.
- b. The emergency room physician.
- c. The patient's cardiologist.
- d. Any of the above.

Scenario 2

Answer: d.

The emergency room doctor, the patient's regular physician, or another physician who has treated the patient for the illness causing death (for example, a cardiologist) may sign the death certificate.

If none of these does so, the chief medical officer of the institution in which death is pronounced shall sign the death certificate (TCA 68-3-502).

Scenario 3

I am a primary care physician in a small rural community. One of my long-time patients, an elderly man with multiple medical problems, has been found dead at home. I have not seen the patient in eight months. Who will sign the death certificate?

- a. The primary care doctor, even though it has been more than four months since the patient was last seen.
- b. The county medical examiner, as the patient had not been seen by the primary care doctor within four months.
- c. Either a or b may sign.

Scenario 3

Answer: c.

The primary care physician, as the person most familiar with the decedent's medical history, is the most appropriate person to complete the death certificate. A physician treating a patient for the disease process accounting for death is obligated by statute to complete and sign the death certificate if the patient has been seen within the four months prior to death.

However, if the treating physician has not seen the patient in the four months before death, and the death occurs outside of a health care facility, the case may be referred to the county medical examiner in the county in which death occurred. The county medical examiner may then review medical records and issue the death certificate.

Scenario 4

I am a pediatrician. I cared for an 8 year-old with profound developmental delays requiring mechanical ventilation who was found dead at home a few days after I diagnosed her with pneumonia. Who should sign the death certificate?

- a. The county medical examiner, as the pneumonia should have been resolving with appropriate therapy.
- b. The pediatrician.
- c. The decedent's neurologist, as the pneumonia was the result of developmental delays requiring mechanical ventilation.
- d. It depends on the underlying cause of the developmental delays.

Scenario 4

Answer: d. It depends.

If the developmental delay is the result of a natural cause (for example, birth asphyxia resulting from a nuchal cord), the pediatrician or another physician attending to the patient will sign the death certificate.

If the developmental delay is due to a non-natural event (for example, remote abusive head trauma), the county medical examiner should be notified, as such a death is properly classified as homicide.

Scenario 5

I am the medical director of a nursing home. I will be out of the country for two weeks on a medical mission trip. How should death certificates be handled in my absence?

- a. Sign multiple blank death certificates and leave them with the chief of nursing to complete.
- b. Another physician should be designated as the responsible party for death certification in the absence of the medical director.
- c. Any deaths occurring during the absence of the medical director may be certified on his or her return to the country.

Scenario 5

Answer: b.

Do not sign blank death certificates. Your signature on the death certificate avers, “To the best of my knowledge, death occurred at the date and place, and due to the cause(s) and manner stated”. The medical certification of death is to be completed within 48 hours of death.

You must designate another physician to sign death certificates during your absence, just as you would for medical emergencies.

Scenario 6

A patient was dependent on parenteral nutrition because of multiple enterocutaneous fistulae. She died in the intensive care unit after developing sepsis due to infection of an indwelling central venous catheter. Which cause of death certification is most appropriate?

28. **PART I.** Enter the chain of events (diseases, injuries, or complications) that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. Enter only one cause on a line.

IMMEDIATE CAUSE (Final disease or condition resulting in death) Sequentially list conditions, if any, leading to the cause listed on line a. Enter the UNDERLYING CAUSE (disease or injury that initiated the events resulting in death) LAST	→ a.	COMPLICATIONS OF ENTEROCUTANEOUS FISTULAE	Due to (or as a consequence of)
	b.		Due to (or as a consequence of):
	c.		Due to (or as a consequence of):
	d.		Due to (or as a consequence of):

28. **PART I.** Enter the chain of events (diseases, injuries, or complications) that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. Enter only one cause on a line.

IMMEDIATE CAUSE (Final disease or condition resulting in death) Sequentially list conditions, if any, leading to the cause listed on line a. Enter the UNDERLYING CAUSE (disease or injury that initiated the events resulting in death) LAST	→ a.	SEPTIC SHOCK	Due to (or as a consequence of)
	b.	CENTRAL VENOUS CATHETER INFECTION	Due to (or as a consequence of):
	c.	DEPENDENCE ON PARENTERAL NUTRITION	Due to (or as a consequence of):
	d.	CROHN'S DISEASE	Due to (or as a consequence of):

28. **PART I.** Enter the chain of events (diseases, injuries, or complications) that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. Enter only one cause on a line.

IMMEDIATE CAUSE (Final disease or condition resulting in death) Sequentially list conditions, if any, leading to the cause listed on line a. Enter the UNDERLYING CAUSE (disease or injury that initiated the events resulting in death) LAST	→ a.	HYPOTENSION	Due to (or as a consequence of)
	b.	SEPTIC SHOCK	Due to (or as a consequence of):
	c.	STAPHYLOCOCCUS AUREUS INFECTION	Due to (or as a consequence of):
	d.		Due to (or as a consequence of):

Scenario 6

28. **PART I.** Enter the chain of events (diseases, injuries, or complications) that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. Enter only one cause on a line.

IMMEDIATE CAUSE

(Final disease or condition resulting in death)

Sequentially list conditions, if any, leading to the cause listed on line a. Enter the

UNDERLYING CAUSE

(disease or injury that initiated the events resulting in death) **LAST**

a. SEPTIC SHOCK

Due to (or as a consequence of)

b. CENTRAL VENOUS CATHETER INFECTION

Due to (or as a consequence of):

c. DEPENDENCE ON PARENTERAL NUTRITION

Due to (or as a consequence of):

d. CROHN'S DISEASE

The above classification of cause of death is precise, sequentially plausible, and lists a specific anatomic process, Crohn's disease, as the underlying cause of death.

"Complications of enterocutaneous fistulae", while technically correct, is incomplete without indicating the cause of the fistulae. "Hypotension due to septic shock due to Staphylococcus aureus infection" provides multiple mechanisms of death without listing a true cause of death.

Scenario 7

Which of the following is an acceptable certification of death?

28. PART I. Enter the <u>chain of events</u> (diseases, injuries, or complications) that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. Enter only one cause on a line.		Approximate interval: Onset to death
IMMEDIATE CAUSE (Final disease or condition resulting in death) → Sequentially list conditions, if any, leading to the cause listed on line a. Enter the UNDERLYING CAUSE (disease or injury that initiated the events resulting in death) LAST	a. <u>HYPERTENSIVE CARDIOVASCULAR DISEASE</u>	<u>YEARS</u>
	Due to (or as a consequence of)	
	b. <u>METABOLIC ACIDOSIS</u>	<u>HOURS</u>
	Due to (or as a consequence of):	
c. <u>BLEEDING GASTROESOPHAGEAL VARICES</u>	<u>DAYS</u>	
Due to (or as a consequence of):		
d. _____		

28. PART I. Enter the <u>chain of events</u> (diseases, injuries, or complications) that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. Enter only one cause on a line.		Approximate interval: Onset to death
IMMEDIATE CAUSE (Final disease or condition resulting in death) → Sequentially list conditions, if any, leading to the cause listed on line a. Enter the UNDERLYING CAUSE (disease or injury that initiated the events resulting in death) LAST	a. <u>METABOLIC ACIDOSIS</u>	<u>HOURS</u>
	Due to (or as a consequence of)	
	b. <u>BLEEDING GASTROESOPHAGEAL VARICES</u>	<u>DAYS</u>
	Due to (or as a consequence of):	
c. <u>CIRRHOSIS</u>	<u>YEARS</u>	
Due to (or as a consequence of):		
d. <u>HEPATITIS B VIRUS INFECTION</u>	<u>YEARS</u>	

PART II. Other significant conditions contributing to death but not resulting in the underlying cause given in PART I. <u>HYPERTENSIVE CARDIOVASCULAR DISEASE</u>	29a. WAS AN AUTOPSY PERFORMED? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	29b. WERE AUTOPSY FINDINGS AVAILABLE TO COMPLETE THE CAUSE OF DEATH? <input type="checkbox"/> Yes <input type="checkbox"/> No

Scenario 7

28. PART I. Enter the <u>chain of events</u> (diseases, injuries, or complications) that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. Enter only one cause on a line.		Approximate interval: Onset to death
IMMEDIATE CAUSE (Final disease or condition resulting in death) → Sequentially list conditions, if any, leading to the cause listed on line a. Enter the UNDERLYING CAUSE (disease or injury that initiated the events resulting in death) LAST	a. <u>METABOLIC ACIDOSIS</u> Due to (or as a consequence of)	HOURS
	b. <u>BLEEDING GASTROESOPHAGEAL VARICES</u> Due to (or as a consequence of):	DAYS
	c. <u>CIRRHOSIS</u> Due to (or as a consequence of):	YEARS
	d. <u>HEPATITIS B VIRUS INFECTION</u>	YEARS
PART II. Other significant conditions contributing to death but not resulting in the underlying cause given in PART I. <u>HYPERTENSIVE CARDIOVASCULAR DISEASE</u>		29a. WAS AN AUTOPSY PERFORMED? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 29b. WERE AUTOPSY FINDINGS AVAILABLE TO COMPLETE THE CAUSE OF DEATH? <input type="checkbox"/> Yes <input type="checkbox"/> No

The cause-of-death statement above follows a logical sequence, lists the underlying disease process responsible for death last, and includes hypertensive cardiovascular disease as a contributory cause of death.

The alternative example reads, from top to bottom, “Hypertensive cardiovascular disease due to metabolic acidosis due to bleeding gastroesophageal varices”, which implies that hypertension is the result of metabolic acidosis, and fails to indicate the etiology of the varices.

Scenario 8

Which of the following is an acceptable certification of death?

<p>28. PART I. Enter the <u>chain of events</u> (diseases, injuries, or complications) that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. Enter only one cause on a line.</p>		<p>Approximate interval: Onset to death</p>
<p>IMMEDIATE CAUSE (Final disease or condition resulting in death) →</p> <p>Sequentially list conditions, if any, leading to the cause listed on line a. Enter the UNDERLYING CAUSE (disease or injury that initiated the events resulting in death) LAST</p>	<p>a. <u>COMPLICATIONS OF MULTIPLE SCLEROSIS</u></p> <p>b. _____ Due to (or as a consequence of)</p> <p>c. _____ Due to (or as a consequence of)</p> <p>d. _____ Due to (or as a consequence of)</p>	<p>YEARS</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>
<p>PART II. Other significant conditions contributing to death but not resulting in the underlying cause given in PART I.</p>		<p>29a. WAS AN AUTOPSY PERFORMED? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>29b. WERE AUTOPSY FINDINGS AVAILABLE TO COMPLETE THE CAUSE OF DEATH? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>30. MANNER OF DEATH</p> <p><input checked="" type="checkbox"/> Natural <input type="checkbox"/> Homicide</p> <p><input type="checkbox"/> Accident <input type="checkbox"/> Pending Investigation</p> <p><input type="checkbox"/> Suicide <input type="checkbox"/> Could not be determined</p>	<p>31. DID TOBACCO USE CONTRIBUTE TO DEATH?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> Probably</p> <p><input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown</p>	<p>32. IF FEMALE:</p> <p><input checked="" type="checkbox"/> Not pregnant within past year <input type="checkbox"/> Not pregnant, but pregnant 43 days to 1 year before death</p> <p><input type="checkbox"/> Pregnant at time of death <input type="checkbox"/> Unknown if pregnant within the past year</p> <p><input type="checkbox"/> Not pregnant, but pregnant within 42 days of death</p>

<p>28. PART I. Enter the <u>chain of events</u> (diseases, injuries, or complications) that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. Enter only one cause on a line.</p>		<p>Approximate interval: Onset to death</p>
<p>IMMEDIATE CAUSE (Final disease or condition resulting in death) →</p> <p>Sequentially list conditions, if any, leading to the cause listed on line a. Enter the UNDERLYING CAUSE (disease or injury that initiated the events resulting in death) LAST</p>	<p>a. <u>UROSEPSIS</u></p> <p>b. <u>PARAPLEGIA</u></p> <p>c. <u>GUNSHOT WOUND TO TORSO, REMOTE</u></p> <p>d. _____</p>	<p>DAYS</p> <p>32 YEARS</p> <p>32 YEARS</p> <p>_____</p>
<p>PART II. Other significant conditions contributing to death but not resulting in the underlying cause given in PART I.</p>		<p>29a. WAS AN AUTOPSY PERFORMED? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>29b. WERE AUTOPSY FINDINGS AVAILABLE TO COMPLETE THE CAUSE OF DEATH? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>30. MANNER OF DEATH</p> <p><input checked="" type="checkbox"/> Natural <input type="checkbox"/> Homicide</p> <p><input type="checkbox"/> Accident <input type="checkbox"/> Pending Investigation</p> <p><input type="checkbox"/> Suicide <input type="checkbox"/> Could not be determined</p>	<p>31. DID TOBACCO USE CONTRIBUTE TO DEATH?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> Probably</p> <p><input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown</p>	<p>32. IF FEMALE:</p> <p><input checked="" type="checkbox"/> Not pregnant within past year <input type="checkbox"/> Not pregnant, but pregnant 43 days to 1 year before death</p> <p><input type="checkbox"/> Pregnant at time of death <input type="checkbox"/> Unknown if pregnant within the past year</p> <p><input type="checkbox"/> Not pregnant, but pregnant within 42 days of death</p>

Scenario 8

28. PART I. Enter the <u>chain of events</u> (diseases, injuries, or complications) that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. Enter only one cause on a line.		Approximate interval: Onset to death
IMMEDIATE CAUSE (Final disease or condition resulting in death)	a. <u>COMPLICATIONS OF MULTIPLE SCLEROSIS</u> Due to (or as a consequence of)	YEARS _____ _____ _____ _____
Sequentially list conditions, if any, leading to the cause listed on line a. Enter the UNDERLYING CAUSE (disease or injury that initiated the events resulting in death) LAST	b. _____ Due to (or as a consequence of): c. _____ Due to (or as a consequence of): d. _____	
PART II. Other significant conditions contributing to death but not resulting in the underlying cause given in PART I.		29a. WAS AN AUTOPSY PERFORMED? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		29b. WERE AUTOPSY FINDINGS AVAILABLE TO COMPLETE THE CAUSE OF DEATH? <input type="checkbox"/> Yes <input type="checkbox"/> No
30. MANNER OF DEATH <input checked="" type="checkbox"/> Natural <input type="checkbox"/> Homicide <input type="checkbox"/> Accident <input type="checkbox"/> Pending Investigation <input type="checkbox"/> Suicide <input type="checkbox"/> Could not be determined	31. DID TOBACCO USE CONTRIBUTE TO DEATH? <input type="checkbox"/> Yes <input type="checkbox"/> Probably <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	32. IF FEMALE: <input checked="" type="checkbox"/> Not pregnant within past year <input type="checkbox"/> Pregnant at time of death <input type="checkbox"/> Not pregnant, but pregnant within 42 days of death <input type="checkbox"/> Not pregnant, but pregnant 43 days to 1 year before death <input type="checkbox"/> Unknown if pregnant within the past year

If the precise physiologic mechanism of death is unclear, it is acceptable to use the term “complications of” a known disease process which could reasonably account for death.

Although “urosepsis due to paraplegia due to gunshot wound to torso, remote”, is an accurate and specific cause of death, the manner of death cannot be considered natural, and the case should be referred to the county medical examiner. The interval of time elapsed between the injury and death does not affect or change the manner of death.



THANK YOU